

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

rec'd T/PTO

14 JUL 2004

PCT/CH2002/000678



Applicant's or agent's file reference CT 001-P/WO		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CH2002/000678	International filing date (day/month/year) 09 December 2002 (09.12.2002)	Priority date (day/month/year) 14 January 2002 (14.01.2002)	
International Patent Classification (IPC) or national classification and IPC B29C 47/00, A23G 1/20			
Applicant BÜHLER AG			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 12 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 30 May 2003 (30.05.2003)	Date of completion of this report 19 January 2004 (19.01.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/CH2002/000678

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:  
 pages 3-5, 8-14, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages 1, 1a, 2, 2a, 2b, 6, 7, filed with the letter of 13 October 2003 (13.10.2003)
- ☒ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages 1-29, filed with the letter of 13 October 2003 (13.10.2003)
- ☒ the drawings:  
 pages 1/4-4/4, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-29	YES
	Claims		NO
Inventive step (IS)	Claims	1-29	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-29	YES
	Claims		NO

## 2. Citations and explanations

Reference is made to the following documents:

D1: EP-A-0 612 603 (HUTCHINSON) 31 August 1994  
(1994-08-31)

D2: SU 856 833 A (INST MEK SPLOSHNYKH SRED URAL) 26 August  
1981

D3: GB-A-1 171 735 (GLANZSTOFFE AG) 26 November 1969  
(1969-11-26)

D4: SU-A-1 445 676 (MO T I PISHCHEVOJ PROMY) 23 December  
1988

## 1. Subject matter of the application

The application relates to a device for processing a conveyable material by means of vibrating collision bodies.

## 2. Prior art

Machines having a passage section in which moveably mounted sub-regions of the channel are coupled with oscillation sources are known *inter alia* from documents D1 to D4.

### 3. Problem / solution

The problem addressed by the application is that of intensifying the oscillations introduced into the fluids.

According to the invention, the problem is solved by filling a volume section of the channel with vibratable collision bodies.

The features of independent claim 1 differ from D1, which can be considered the closest prior art, with regard to the filling with vibratable collision bodies. In this respect, the features of claim 1 are novel.

Search report citations D1 to D4 merely disclose conventional oscillation sources that are applied externally to a sub-area of the passage section but do not disclose loose collision bodies in the channel itself.

This combination of features is not known from or suggested by any of the heretofore available documents. These documents thus do not provide any indication of this possibility. Therefore, the subject matter of the application satisfies the requirements of PCT Article 33(2) and (3) with respect to novelty and inventive step.

### 4. Dependent claims 2-29

Each of the features of the subject matter of dependent claims 2 to 29 relates to useful, creative developments. In combination with the independent claim to which they refer back, these claims can be considered to be novel and to involve an inventive step.

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The dependent claims thus also satisfy the requirements of PCT Article 33(2) and (3).

Industrial applicability

The subject matter of the application satisfies the requirements of PCT Article 33(4) with respect to the industrial applicability of the claimed invention.

5. Observation

The amendments (additional features) in claim 1 are admissible, since they were taken from sub-claim 26 or are found in the description.